



71

SEQUENCE LISTING

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<120> CXCR Agonist Treatment of Hematopoietic
Cells

<130> SMAF-012CIP

<140> 10/086,177

<141> 2002-02-26

<150> 09/835,107

<151> 2001-04-12

<150> 60/232,425

<151> 2000-09-14

<150> CA 2,305,036

<151> 2000-04-12

<150> CA 2,335,109

<151> 2001-02-23

<160> 34

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<212> PRT

<213> Homo sapiens

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1				5					10					15	
His	Val	Ala	Arg	Ala	Asn	Val	Lys	His	Leu	Lys	Ile	Leu	Asn	Thr	Pro
			20				25					30			
Asn	Cys	Ala	Leu	Gln	Ile	Val	Ala	Arg	Leu	Lys	Asn	Asn	Asn	Arg	Gln
		35				40					45				
Val	Cys	Ile	Asp	Pro	Lys	Leu	Lys	Trp	Ile	Gln	Glu	Tyr	Leu	Glu	Lys
	50					55				60					
Ala	Leu	Asn													
65															

<210> 2

<211> 93

<212> PRT

<213> Homo sapiens

<400> 2

Met	Asn	Ala	Lys	Val	Val	Val	Val	Leu	Val	Leu	Val	Leu	Thr	Ala	Leu
1				5					10					15	
Cys	Leu	Ser	Asp	Gly	Lys	Pro	Val	Ser	Leu	Ser	Tyr	Arg	Cys	Pro	Cys
			20					25					30		
Arg	Phe	Phe	Glu	Ser	His	Val	Ala	Arg	Ala	Asn	Val	Lys	His	Leu	Lys
		35					40					45			
Ile	Leu	Asn	Thr	Pro	Asn	Cys	Ala	Leu	Gln	Ile	Val	Ala	Arg	Leu	Lys
	50					55					60				
Asn	Asn	Asn	Arg	Gln	Val	Cys	Ile	Asp	Pro	Lys	Leu	Lys	Trp	Ile	Gln
65					70					75					80
Glu	Tyr	Leu	Glu	Lys	Ala	Leu	Asn	Lys	Arg	Phe	Lys	Met			
				85					90						

<210> 3

<211> 93

<212> PRT

<213> Homo sapiens

<400> 3

Met	Asn	Ala	Lys	Val	Val	Val	Val	Leu	Val	Leu	Val	Leu	Thr	Ala	Leu
1				5					10					15	
Cys	Leu	Ser	Asp	Gly	Lys	Pro	Val	Ser	Leu	Ser	Tyr	Arg	Cys	Pro	Cys
			20					25					30		
Arg	Phe	Phe	Glu	Ser	His	Val	Ala	Arg	Ala	Asn	Val	Lys	His	Leu	Lys
		35					40					45			
Ile	Leu	Asn	Thr	Pro	Asn	Cys	Ala	Leu	Gln	Ile	Val	Ala	Arg	Leu	Lys
	50					55					60				
Asn	Asn	Asn	Arg	Gln	Val	Cys	Ile	Asp	Pro	Lys	Leu	Lys	Trp	Ile	Gln
65					70					75					80
Glu	Tyr	Leu	Glu	Lys	Ala	Leu	Asn	Lys	Arg	Phe	Lys	Met			
				85					90						

<210> 4

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-17): or
CTCE9902

<400> 4

Lys	Pro	Val	Ser	Leu	Ser	Tyr	Arg	Cys	Pro	Cys	Arg	Phe	Phe	Glu	Ser
1				5					10					15	
His															

<210> 5

<211> 6

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<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory

<400> 5

Arg Phe Phe Glu Ser His

1

5

<210> 6

<211> 9

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<223> Synthesized in Laboratory

<400> 6

Lys Pro Val Ser Leu Ser Tyr Arg Cys

1

5

<210> 7

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-9)
2-C9/C9-cysteine dimer: or CTCE9901

<400> 7

Lys Pro Val Ser Leu Ser Tyr Arg Cys

1

5

<210> 8

<211> 10

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<220>

<223> Synthesized in Laboratory

<221> VARIANT

<222> 10

<223> Xaa = Any Amino Acid

<221> VARIANT

<222> 10

<223> Xaa = Any Amino Acid

<400> 8

Lys Pro Val Ser Leu Ser Tyr Arg Cys Xaa

1

5

10

<210> 9

<211> 9

<212> PPT
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 <220>
 <223> Synthesized in Laboratory

 <400> 9
 Lys Pro Val Ser Leu Ser Tyr Arg Cys
 1 5

<210> 10
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<400> 10
 Lys Pro Val Ser Leu Ser Tyr Arg Xaa
 1 5

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<220>
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<400> 11
 Lys Pro Val Ser Leu Ser Tyr Arg
 1 5

<210> 12
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<220>
 <223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
 3-SDF-1 (55-67) acid

<400> 12
 Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
 1 5 10 15

Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
 20 25 30

<210> 13
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<220>
 <223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
 3-SDF-1 (55-67) acid: or CTCE0013

<400> 13
 Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
 1 5 10 15
 Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
 20 25 30

<210> 14
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
 3-SDF-1 (55-67) amide

<400> 14
 Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
 1 5 10 15
 Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
 20 25 30

<210> 15
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
 3-SDF-1 (55-67) amide: or CTCE0017

<400> 15
 Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
 1 5 10 15
 Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
 20 25 30

<210> 16
 <211> 33
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-17) - (G)
3-SDF-1 (55-67) acid

<400> 16

Lys	Pro	Val	Ser	Leu	Ser	Tyr	Arg	Cys	Pro	Cys	Arg	Phe	Phe	Glu	Ser
1				5				10						15	
His	Gly	Gly	Gly	Leu	Lys	Trp	Ile	Gln	Glu	Tyr	Leu	Glu	Lys	Ala	Leu
			20					25					30		

Asn

<210> 17

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-17) - (G)
3-SDF-1 (55-67) acid

<400> 17

Lys	Pro	Val	Ser	Leu	Ser	Tyr	Arg	Cys	Pro	Cys	Arg	Phe	Phe	Glu	Ser
1				5				10						15	
His	Gly	Gly	Gly	Gly	Leu	Lys	Trp	Ile	Gln	Glu	Tyr	Leu	Glu	Lys	Ala
			20					25					30		

Leu Asn

<210> 16

<211> 33

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-17) - (G)
3-SDF-1 (55-67) amide

<400> 18

Lys	Pro	Val	Ser	Leu	Ser	Tyr	Arg	Cys	Pro	Cys	Arg	Phe	Phe	Glu	Ser
1				5				10						15	
His	Gly	Gly	Gly	Leu	Lys	Trp	Ile	Gln	Glu	Tyr	Leu	Glu	Lys	Ala	Leu
			20					25					30		

Asn

<210> 19

<211> 34

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-17) - (G)
3-SDF-1 (55-67) amide

<400> 19

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Glu Ser
1 5 10 15
His Gly Gly Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala
20 25 30
Leu Asn

<210> 20

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - E24/K28-cyclic acid

<400> 20

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 21

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - K20/E24-cyclic acid

<400> 21

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 22

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - E24/K28-cyclic acid: or CTCE0022

<400> 22

Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 23
<211> 31
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - K20/E24-cyclic acid: or CTCE0021

<400> 23
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 24
<211> 31
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - K20/D24-cyclic acid

<400> 24
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Asp Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 25
<211> 31
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - K20/D24-cyclic amide

<400> 25
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Leu Lys Trp Ile Gln Asp Tyr Leu Glu Lys Ala Leu Asn
20 25 30

<210> 26
<211> 31
<212> PET
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-SDF-1 (55-67) - C9/C11-cyclic acid

<400> 26
 Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
 1 5 10 15
 Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
 20 25 30

<210> 27
 <211> 31
 <212> PPT
 <213> Artificial Sequence

<220>
 <223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
 4-SDF-1 (55-67) - C9/C11-cyclic amide

<400> 27
 Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
 1 5 10 15
 Gly Gly Leu Lys Trp Ile Gln Glu Tyr Leu Glu Lys Ala Leu Asn
 20 25 30

<210> 28
 <211> 33
 <212> PPT
 <213> Artificial Sequence

<220>
 <223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
 4-MIP-1 alpha (36-50) amide

<400> 28
 Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
 1 5 10 15
 Gly Gly Ser Lys Pro Gly Val Ile Phe Leu Thr Lys Arg Ser Arg Gln
 20 25 30
 Val

<210> 29
 <211> 58
 <212> PPT
 <213> Artificial Sequence

<220>
 <223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
 4-MIP-1 alpha (11-50) -acid or amide

<400> 29
 Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
 1 5 10 15
 Gly Gly Cys Cys Phe Ser Tyr Thr Ser Arg Gln Ile Pro Gln Asn Phe
 20 25 30
 Ile Ala Asp Tyr Phe Glu Thr Ser Ser Gln Cys Ser Lys Pro Gly Val
 35 40 45

Ile Phe Leu Thr Lys Arg Ser Arg Gln Val
50 55

<210> 30
<211> 33
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
4-MIP-1 alpha (56-70) -acid or amide

<400> 30
Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
1 5 10 15
Gly Gly Glu Glu Trp Val Gln Lys Tyr Val Asp Asp Leu Glu Leu Ser
20 25 30
Ala

<210> 31
<211> 9
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-8)2-lysine
bridge dimer: CTCE9904

<400> 31
Lys Pro Val Ser Leu Ser Tyr Arg Lys
1 5

<210> 32
<211> 8
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory: SDF-1 (1-8)2-lysine
bridge dimer: CTCE9904

<400> 32
Lys Pro Val Ser Leu Ser Tyr Arg
1 5

<210> 33
<211> 40
<212> PPT
<213> Artificial Sequence

<220>
<223> Synthesized in Laboratory

<400> 33
 Cys Cys Phe Ser Tyr Thr Ser Arg Gln Ile Pro Gln Asn Phe Ile Ala
 1 5 10 15
 Asp Tyr Phe Glu Thr Ser Ser Gln Cys Ser Lys Pro Gly Val Ile Phe
 20 25 30
 Leu Thr Lys Arg Ser Arg Gln Val
 35 40

<210> 34
 <211> 33
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthesized in Laboratory: SDF-1 (1-14) - (G)
 4-MIP-1 alpha (36-50) - acid

<400> 34
 Lys Pro Val Ser Leu Ser Tyr Arg Cys Pro Cys Arg Phe Phe Gly Gly
 1 5 10 15
 Gly Gly Ser Lys Pro Gly Val Ile Phe Leu Thr Lys Arg Ser Arg Gln
 20 25 30
 Val